

**Environmental
Resources
Management**

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October 20, 2015
0121022

Ms. Carolyn Daniels
Response and Remediation Program
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE
Suite 1054, East Tower
Atlanta, Georgia 30334-9000



Subject: Follow-Up Information Submittal in Preparation for the Submittal
of the Ninth Semi-Annual Progress Report to the VRP Program
for HSI Site No. 10731, BWAY Corporation - Homerville, Georgia

Dear Ms. Daniels:

This correspondence is being provided to you as a follow-up to the Eighth Semi-Annual Progress Report for the former BWAY drum site (the Site), which was submitted to you in July 2015. As you are aware, the Site is located immediately north of Hazardous Sites Inventory (HSI) site no. 10032, the Brockway Standard – Homerville Plant (the Plant site).

In September 2015 ERM collected a second round of groundwater samples from the deep on-site wells ERM-MW-7 and ERM-MW-27, which had previously been sampled in March of this year. The sample results from this latest groundwater sampling event are shown on Figures included with this correspondence and will be included in the forthcoming Ninth Semi-Annual Progress Report.

Included with this correspondence are several figures that you requested be prepared. The figures are:

- *Figure 1, Site Location Map.*
- *Figure 2, Site Map.*
- *Figure 3, Estimated Groundwater Elevation Contours – Shallow Zone Surficial Aquifer.*
- *Figure 4, Estimated Groundwater Elevation Contours – Deep Zone Surficial Aquifer.*

- *Figure 5, Groundwater Concentration Summary – Shallow Zone Surficial Aquifer.*
- *Figure 6, Groundwater Concentration Summary – Deep Zone Surficial Aquifer.*
- *Figure 7, Generalized Geologic Cross-Section.*

Additional information concerning the figures is provided below.

Figure 1, Site Location Map

Figure 1 shows the locations of the Site (HSI site no. 10731), the Plant site (HSI site no. 10032), and adjoining tax parcel 063-041. The Site is regulated under Georgia's Voluntary Remediation Program. The Plant site is regulated under Georgia's Hazardous Sites Response Act (HSRA). Site investigations activities at the Plant site have been conducted by GHD (formerly Conestoga-Rovers Associates (CRA)).

Figure 2, Site Map

This figure shows features on each of the sites, including the locations of groundwater monitoring wells. Also shown on this figure is the location of City Well #3, which is located along the western boundary of the Plant site.

Figure 3, Estimated Groundwater Elevation Contours – Shallow Zone Surficial Aquifer

As used here the term Shallow Zone refers to that portion of the Surficial Aquifer characterized by a grey, fine to coarse grained, poorly graded sand ranging in thickness from 18 to 46 feet and which is overlain by 5 to 8 feet of fine to medium grained, well graded silty / clayey sand to ground surface. The hydrogeologic properties for this zone define it as having an average hydraulic conductivity of 2.1×10^{-3} cm / sec in for the Site and 8.3×10^{-3} cm / sec for the Plant site (Corrective Action Plan compiled by CRA in August of 2012 (Ref. no. 006975 (17))).

Figure 3 shows estimated groundwater elevation contours for the Shallow Zone at Site and the Plant site. The contours for the Site were developed using data collected by ERM in March 2015. The contours for the Plant site were developed using data collected by GHD in May 2014. It is recognized that groundwater elevation data for the two sites were collected during two

different monitoring events (May 2014 and March 2015). Nevertheless, the figure shows the following:

- The general direction of groundwater movement in the Shallow Zone at the Site is generally west and southwest.
- The general direction of groundwater movement in the Shallow Zone at the Plant site is southwest. Historical data for the Plant site show that groundwater flow direction is influenced by Bateman's Pond based on seasonal climate variations (see page 12 in Corrective Action Plan compiled by CRA in August of 2012 (Ref. no. 006975 (17))

Figure 4, Estimated Groundwater Elevation Contours – Deep Zone Surficial Aquifer

As used here, the term Deep Zone refers to that portion of the Surficial Aquifer characterized by a fine to coarse grained, well graded silty/ clayey sand or 'transitional' clayey sand generally found from 40 feet bgs and terminating at the upper Hawthorn confining unit. The hydrogeologic properties for this zone define it as having an average hydraulic conductivity of 4.2×10^{-4} cm/ sec for the Plant site (Corrective Action Plan compiled by CRA in August of 2012 (Ref. no. 006975 (17))).

Figure 4 shows groundwater elevation contours for Deep Zone at the Site as estimated from data collected by ERM in September 2015. The groundwater elevation contours indicate groundwater in the Deep Zone at the Site is moving towards the northeast.

Groundwater elevation contours in the Deep Zone on the Plant site as estimated by GHD in 2014 are also shown on figure 4. The groundwater elevation contours indicate that the direction of groundwater movement in the Deep Aquifer is generally towards the west.

Similar to Figure 3, it is recognized that groundwater elevation data for the two sites were collected during to different monitoring events (May 2014 and September 2015). Nevertheless, the information shown on Figure 4 is important because it indicates that the direction of groundwater movement in the Deep Zone at that Site is not in the direction of City Well #3.

Figure 5, Groundwater Concentration Summary – Shallow Zone Surficial Aquifer

Figure 5 was prepared using groundwater quality data for the Site from March 2015 and groundwater quality data for the Plant site from May 2014. The key information shown on this figure is that no VOCs were detected in the groundwater samples collected from the two Shallow Zone monitoring wells located along the southern boundary of the Site, ERM-MW-22 and MW-23, in March 2015. Additionally, no VOCs were detected in groundwater samples from wells MW-4, MW-7, MW-14B, and MW-25 on the Plant site in May 2014. These results indicate that VOCs in shallow groundwater on the Site have not affected groundwater quality on the Plant site or in proximity to City Well #3.

Figure 6, Groundwater Concentration Summary – Deep Zone Surficial Aquifer

Figure 6 summarizes groundwater quality data for the Deep Zone at the Site and the Plant site. The data for the Site are from the March 2015 and September 2015 sampling events. The data for the Plant site are from GHD sampling conducted in May 2014. Key information shown on this figure includes:

- The concentrations of VOCs in the former drum disposal area at the Site (ERM-MW-14) remain below the detection limits of the analytical method.
- Groundwater quality data at wells ERM-MW-7 and ERM-MW-27 did not vary notably between the two monitoring events (March and September 2015). This likely confirms that the March sampling results did not represent the drag-down effect of contamination from well installation.

It is again emphasized that the groundwater elevation data indicate that the direction of groundwater movement in the Deep Zone at the Site is towards the northeast. Consequently, VOCs present in the Deep Zone at the Site are not expected to migrate in the direction of the Plant site or City Well #3.

Figure 7, Generalized Geologic Cross-Section Across Transect A - A'

This figure shows a generalized geologic cross-section that has been developed for both of the sites. As requested, the cross-section includes City Well #3. The information shown on the cross-section is based on geologic logs of various

boreholes drilled on the sites by ERM and CRA. Key information shown on the cross-section includes:

- Work conducted by CRA at the Plant site has shown that the top of the Hawthorn Formation, which serves as the separating and confining unit between the Surficial Aquifer and the Floridian aquifer, is located at depths ranging between 50 and 70 feet below grade at the Plant site. CRA has also shown that the upper portion of the Hawthorn Formation is dry. Considering the fact that the Hawthorn Formation is regionally extensive, it is reasonable to assume that the top of the formation beneath the Site is located at similar depths. It is also reasonable to assume that the upper portion of the Hawthorn Formation at the Site is also dry.
- City Well #3 is completed to a depth of 604 feet below grade, which is estimated to be 402 feet below the bottom of the Hawthorn Formation.
- The bottoms of the deep wells on the Site are estimated to be within 2 to 20 feet of the top of the Hawthorn Formation. Considering that the bottoms of the deep wells on the Site are likely this close to the top of the Hawthorn Formation and the fact that total VOC concentrations in these wells recently range between 22.9 and 204 micrograms per liter (based on data from the March and September 2015 sampling event), it is reasonable to assume that the Surficial Aquifer at the Site is contaminated vertically to the top of the Hawthorn Formation.

Based the information shown on the attached figures and discussed above, ERM and BWAY come to the following conclusions:

- VOCs in the Shallow Zone at the Site have not affected groundwater quality in the Shallow Zone at the Plant site. The existing network of Shallow Zone monitoring wells is sufficient for any monitoring that may be needed to safeguard City Well #3.
- It is reasonable to assume that the Surficial Aquifer at the Site is contaminated throughout its entire thickness to the top of the Hawthorn Formation. ERM and BWAY see little value associated with the possible installation of an additional well at the Site for the purpose of characterizing the vertical extent of contamination in the Surficial Aquifer. Furthermore, drilling in proximity to top of the Hawthorn Formation runs the risk of compromising the integrity of the formation as a confining unit. This, in turn, puts the deeper aquifer at risk.

We look forward to your review of this letter. In an effort to maintain the project schedule, we would appreciate receiving your comments as soon as possible.

Sincerely,






Andreas Shoredits
Project Manager

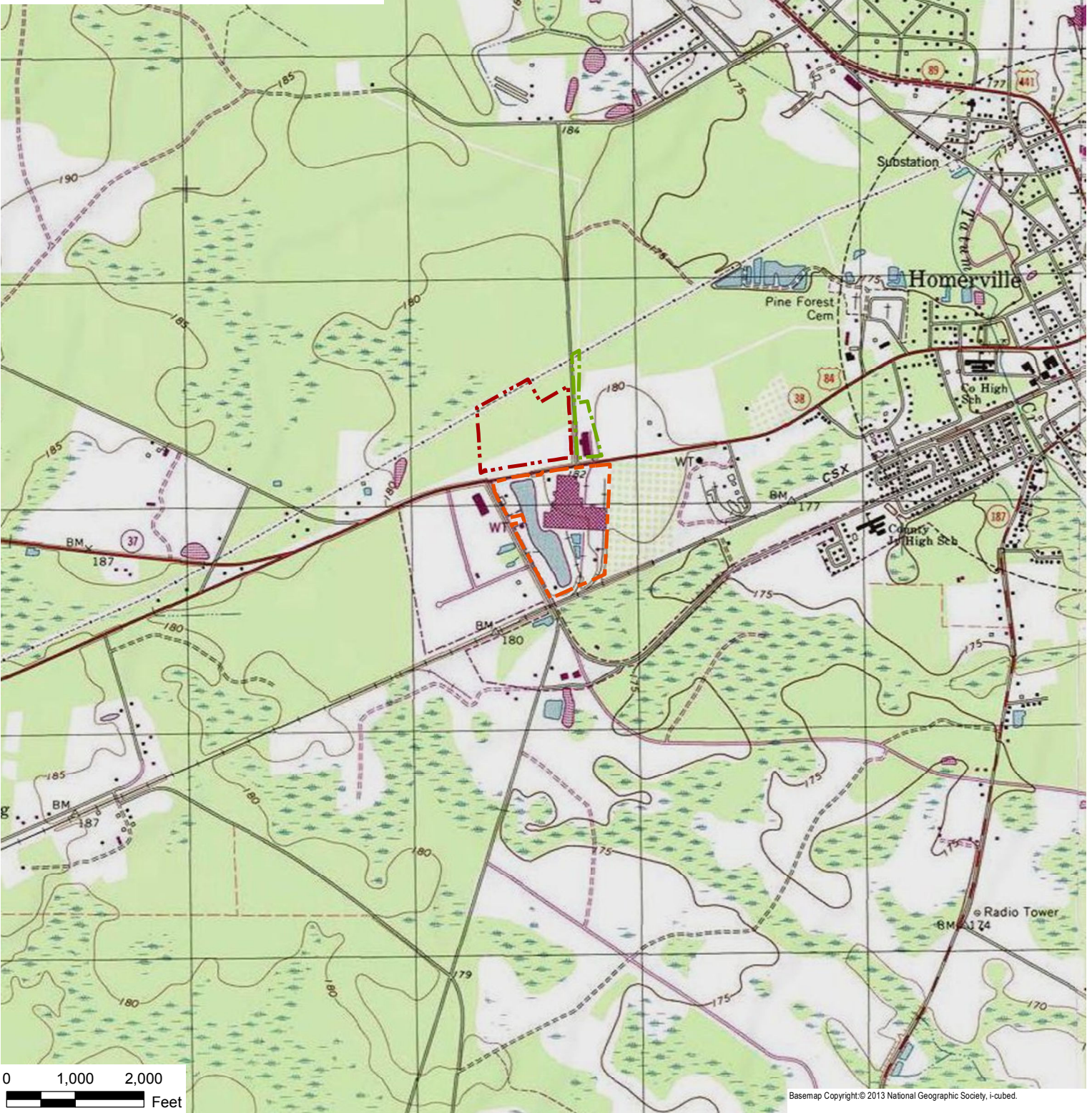


Jeffrey N. Bilkert
Principal

cc: Steve Barger, BWAY Corporation;
Mark Miller, Cornerstone;
Bruce Bultman, AEGIS Environmental

Legend

-  VRP Qualifying Parcel (063-026)
-  Tax Parcel 063-041
-  BWAY Homerville Plant (HSI #10032)



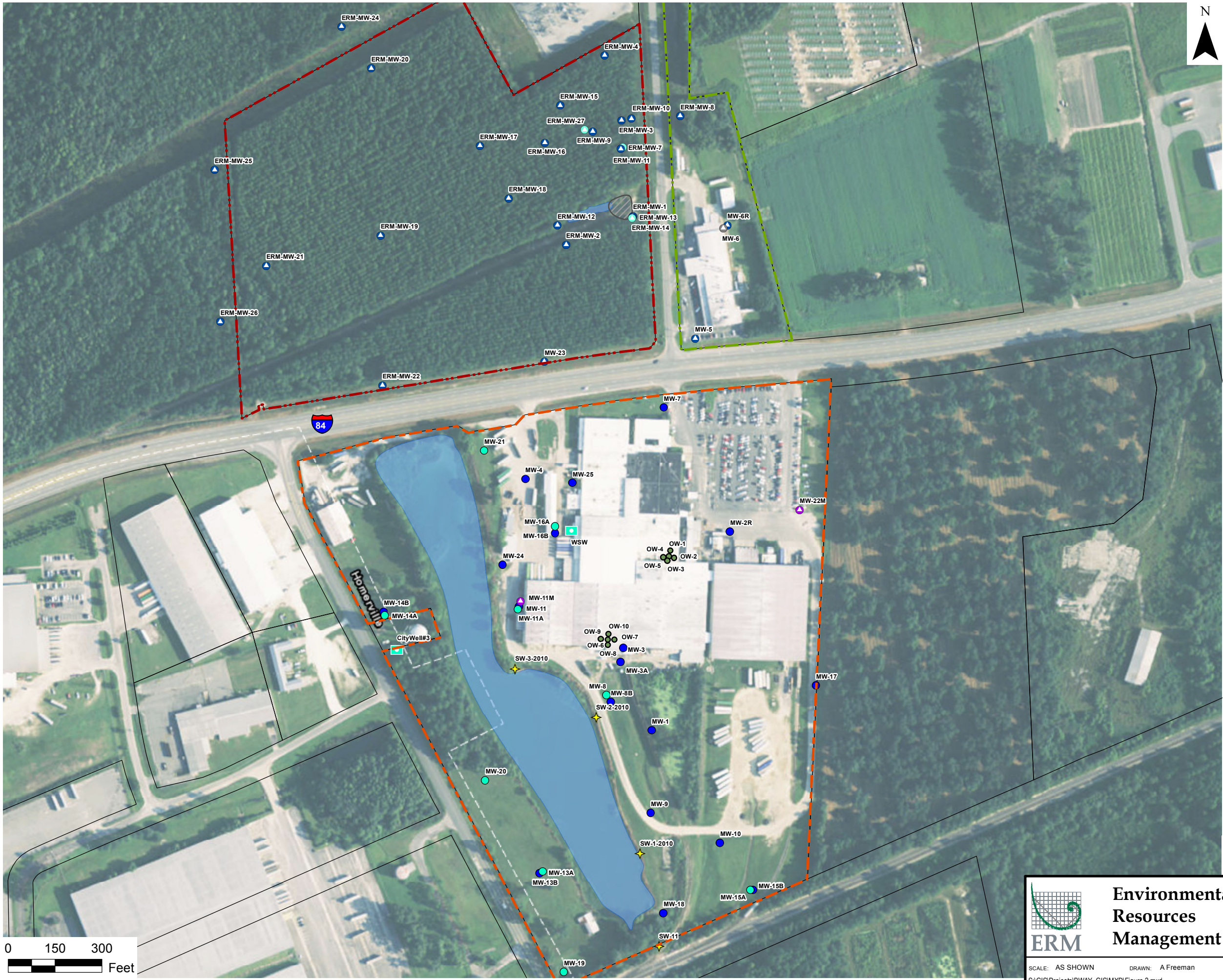
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FIGURE 1
Site Location Map

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



Legend

- Parcel Lines
- Pond

On-Site Sampling Locations

- VRP Qualifying Parcel (063-026) (Former Drum Site)
- Shallow Monitor Well
- Deep Monitor Well
- Abandoned Monitor Well
- Former Drum Disposal Area

Off-Site Sample Locations

- BWAY Homerville Plant (HSI #10032)
- Tax Parcel 063-041
- Off-Site Shallow Surficial Monitor Well
- Off-Site Deep Surficial Monitor Well
- Off-Site Miocene Aquifer Well
- Off-Site Observation Well
- Surface Water Sample Location

Supply Wells

- Water Supply Well

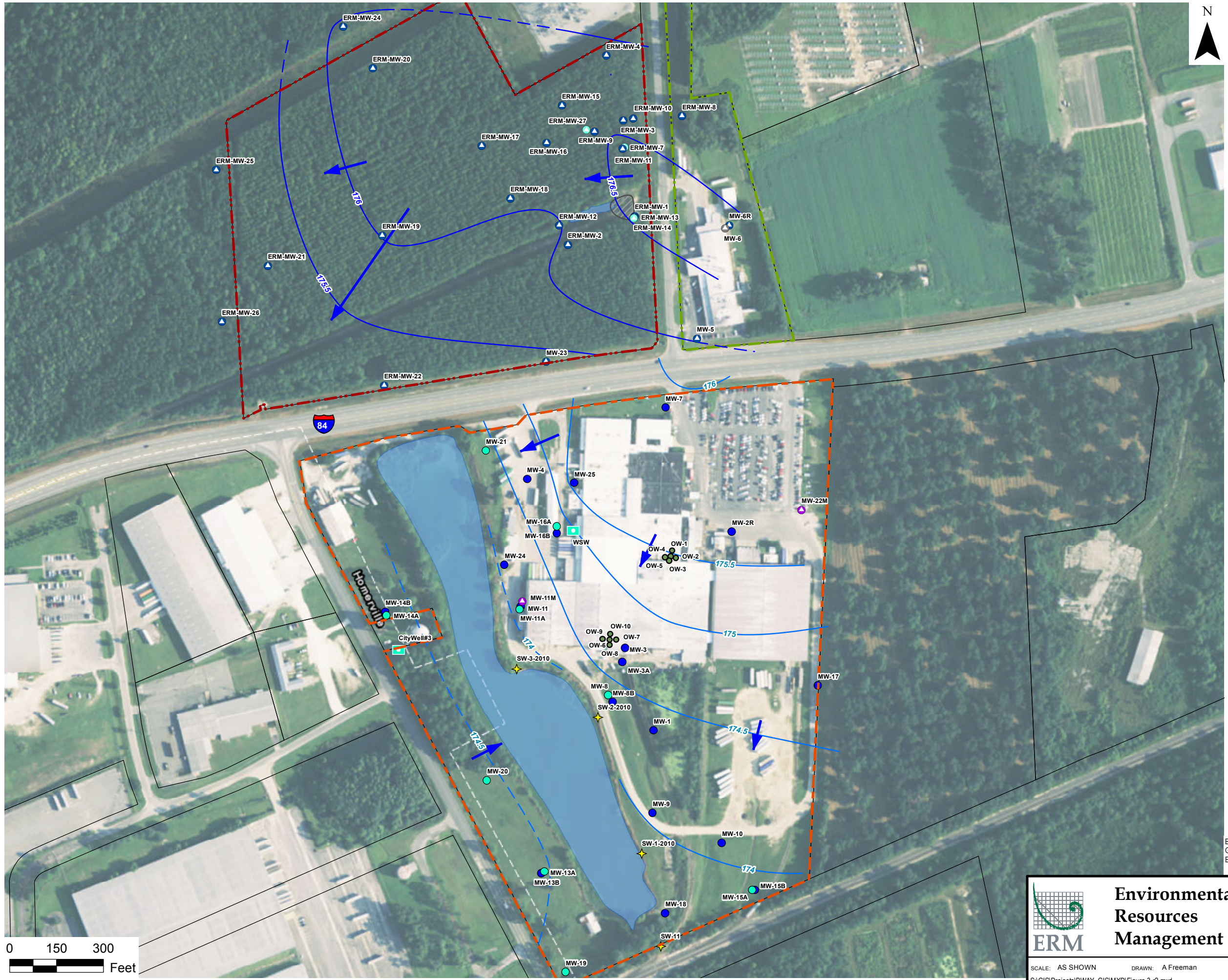
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**FIGURE 2
Site Map**

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



Legend

- Parcel Lines
- Pond
- Approximate Groundwater Flow Direction

On-Site Sampling Locations

- VRP Qualifying Parcel (063-026) (Former Drum Site)
- Former Drum Disposal Area
- Shallow Monitor Well
- Deep Monitor Well
- Abandoned Monitor Well
- Groundwater Elevation Contours (ERM, 2015)
- (dashed in areas of less certainty)

Off-Site Sample Locations

- BWAY Homerville Plant (HSI #10032)
- Tax Parcel 063-041
- Off-Site Shallow Surficial Monitor Well
- Off-Site Deep Surficial Monitor Well
- Off-Site Miocene Aquifer Well
- Off-Site Observation Well
- Surface Water Sample Location

Supply Wells

- Water Supply Well
- Groundwater Elevation Contours (CRA, 2014)
- (dashed in areas of less certainty)

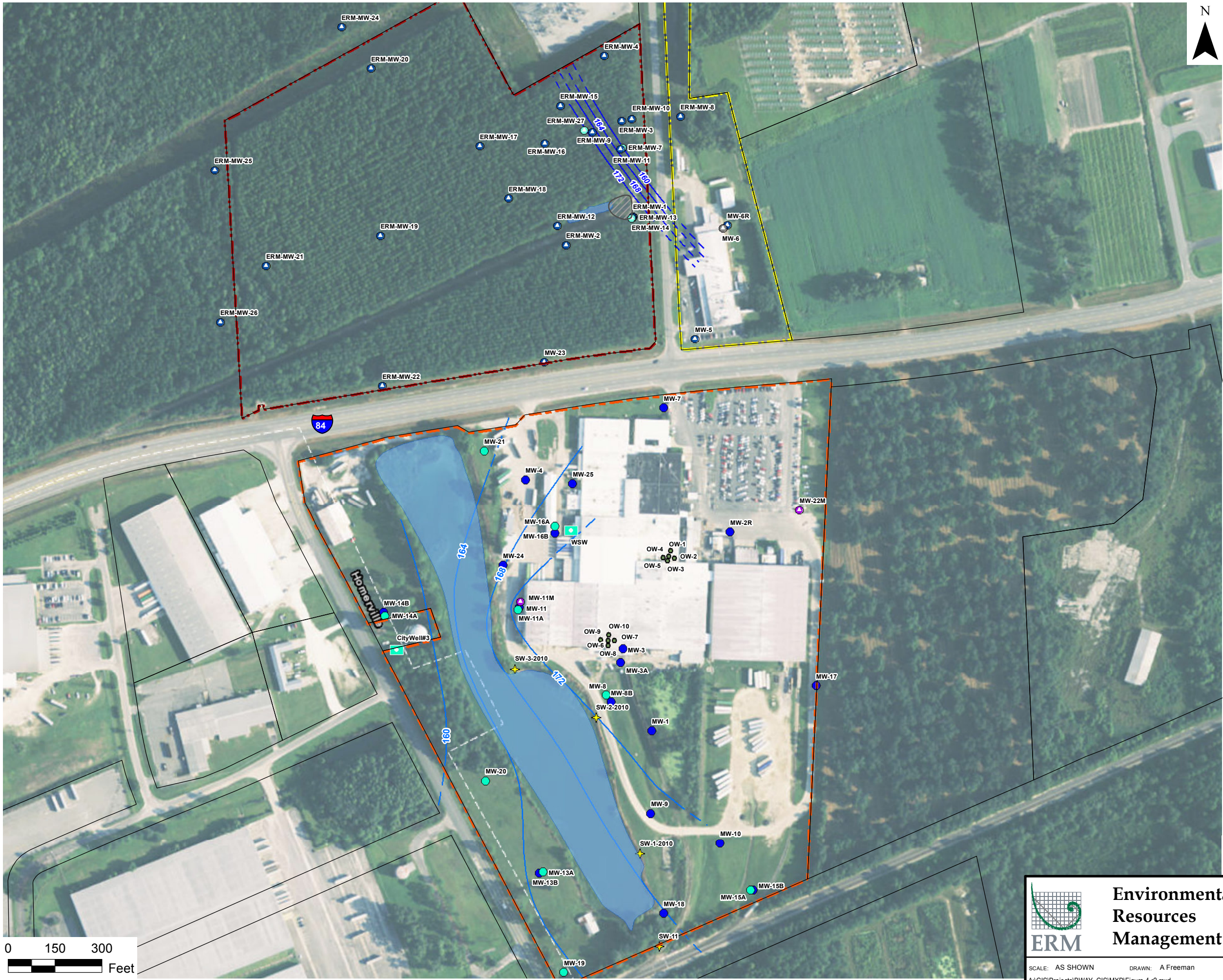
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FIGURE 3
Estimated Groundwater Elevation
Contours - Shallow Aquifer
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



Legend

- Parcel Lines
- Former Drum Disposal Area
- Pond

Supply Wells

- Water Supply Well

On-Site Sampling Locations

- VRP Qualifying Parcel (063-026) (Former Drum Site)
- Shallow Zone Monitor Well
- Deep Zone Monitor Well
- Abandoned Monitor Well
- Groundwater Elevation Contours (feet, ERM, 2015)
- (dashed in areas of less certainty)

Off-Site Sample Locations

- BWAY Homerville Plant (HSI #10032)
- Tax Parcel 063-041
- Off-Site Shallow Zone Monitor Well
- Off-Site Deep Zone Monitor Well
- Off-Site Miocene (Hawthorn) Zone Well
- Off-Site Observation Well
- Surface Water Sample Location
- Potentiometric Surface (feet, CRA, 2014)
- (dashed in areas of less certainty)

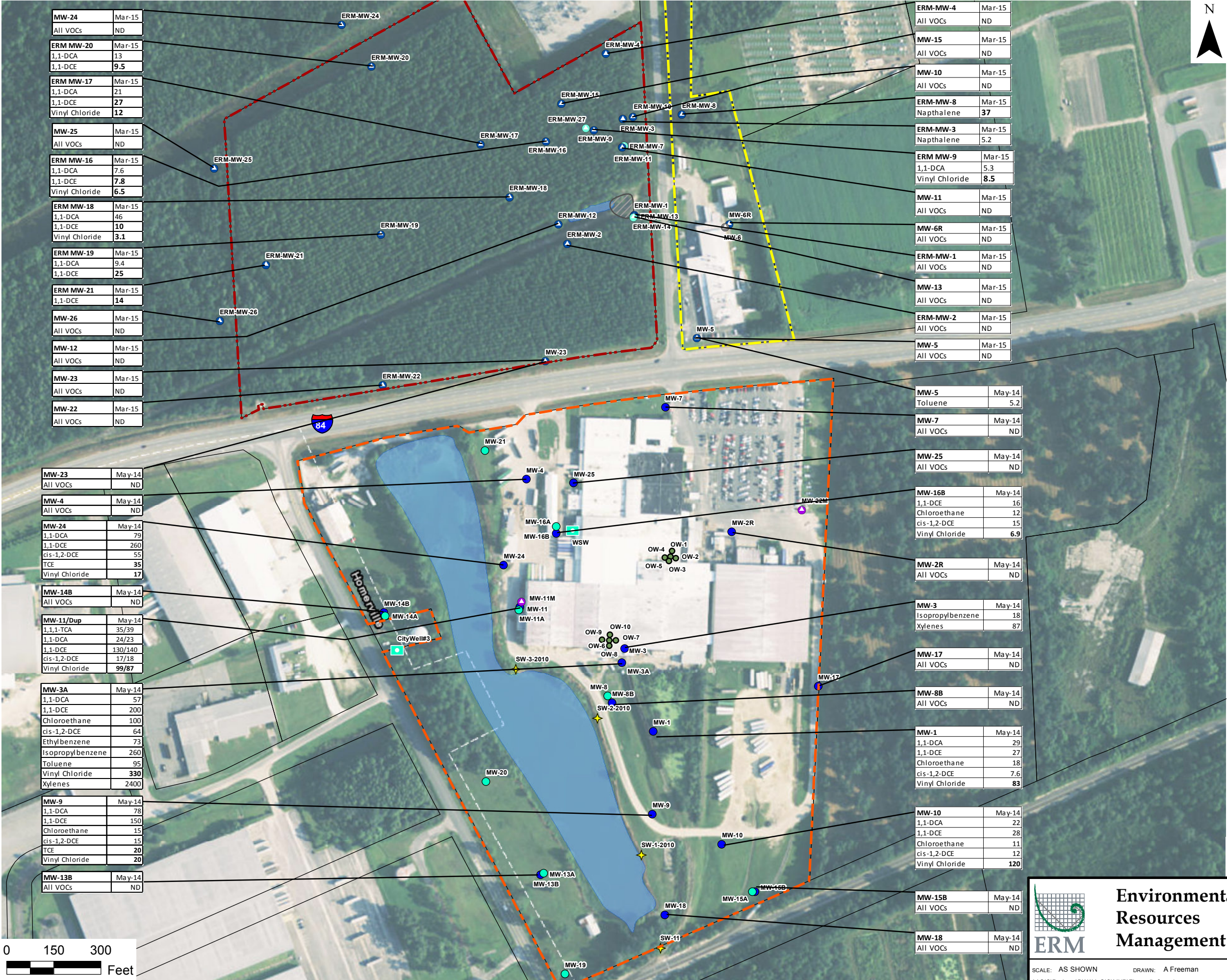
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FIGURE 4
**Estimated Groundwater Elevation
Contours, Deep Zone**
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



Legend

Supply Wells

Water Supply Well

Parcel Lines

Pond

On-Site Sampling Locations

VRP Qualifying Parcel (063-026)
(Former Drum Site)

Former Drum Disposal

Shallow Zone Monitor Well

Deep Zone Monitor Well

Abandoned Monitor Well

Off-Site Sample Locations

BWAY Homerville Plant (HSI
#10032)

Tax Parcel 063-041

Off-Site Shallow Zone Monitor Well

Off-Site Deep Zone Monitor Well

Off-Site Miocene (Hawthorn) Zone
Well

Off-Site Observation Well

Surface Water Sample Location

Data concentrations are in ug/L

ND = Not detected

Basemap Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
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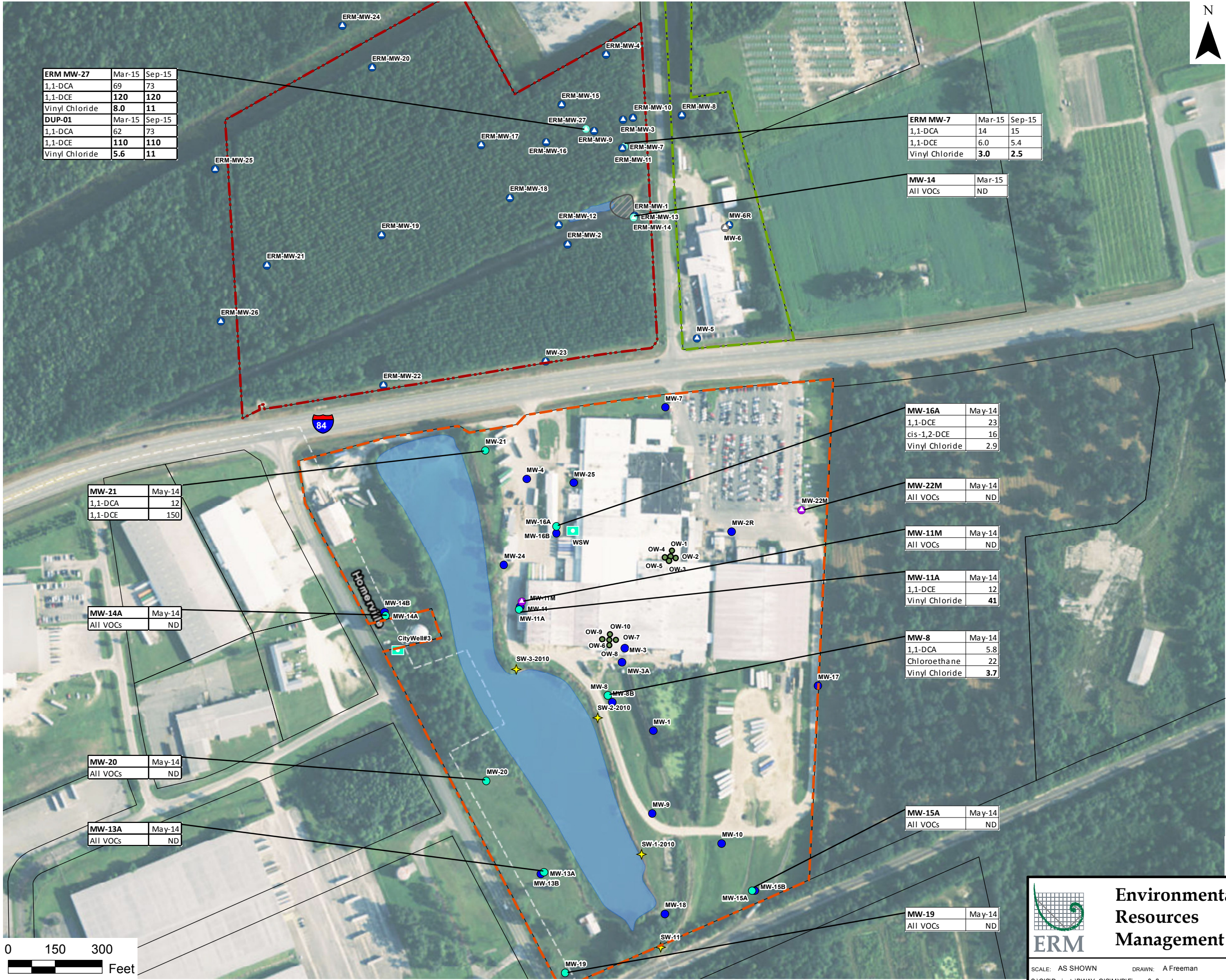


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FIGURE 5
Groundwater Concentration Summary
Shallow Zone

BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



Legend

- Parcel Lines
- Pond

On-Site Sampling Locations

- VRP Qualifying Parcel (063-026) (Former Drum Site)
- Former Drum Disposal Area
- Shallow Monitor Well
- Deep Monitor Well
- Abandoned Monitor Well

Off-Site Sample Locations

- BWAY Homerville Plant (HSI #10032)
- Tax Parcel 063-041
- Off-Site Shallow Surficial Monitor Well
- Off-Site Deep Surficial Monitor Well
- Off-Site Miocene Aquifer Well
- Off-Site Observation Well
- Surface Water Sample Location

Supply Wells

- Water Supply Well

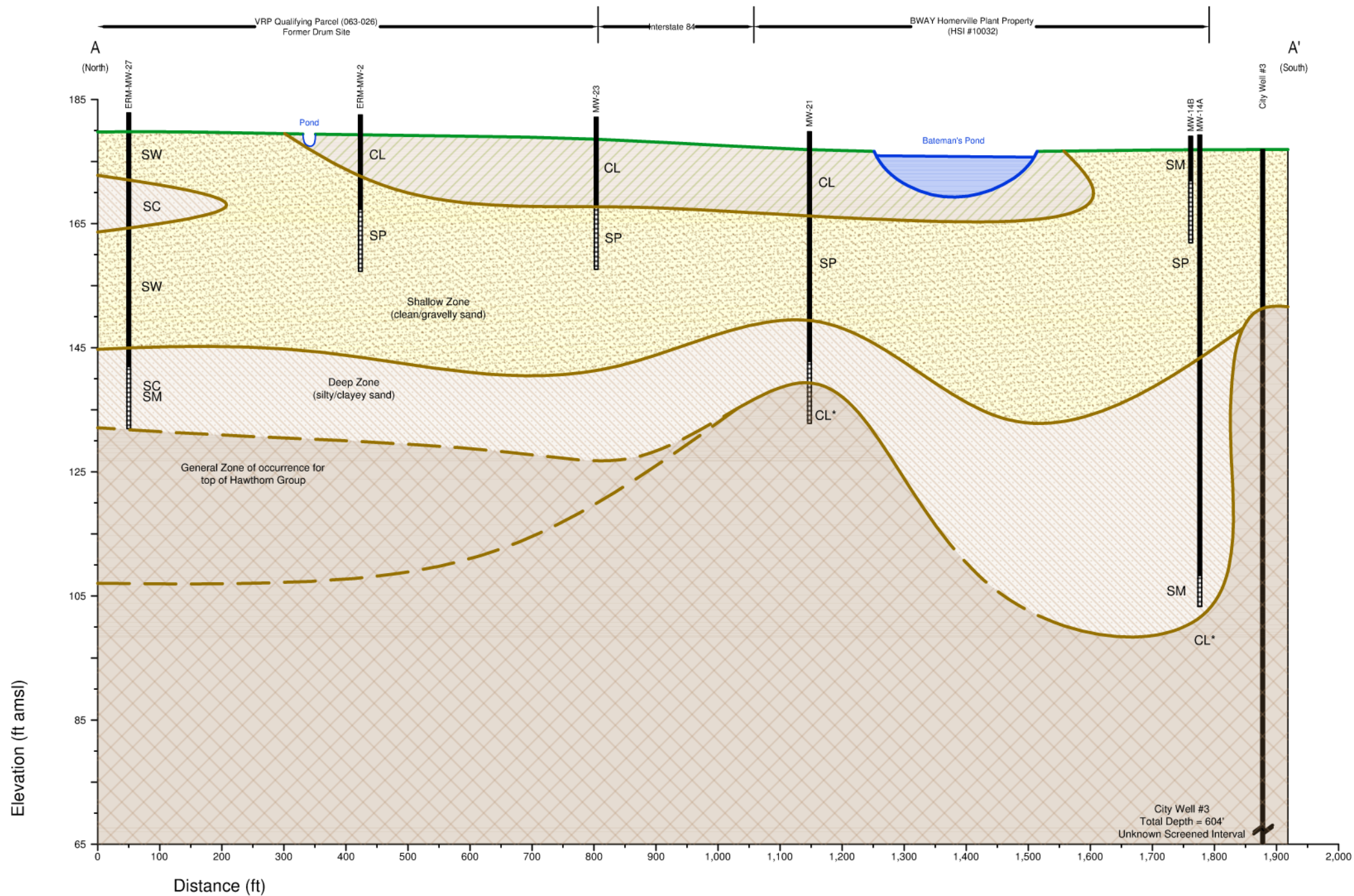
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FIGURE 6
Groundwater Concentration Summary
Deep Surficial Aquifer
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia



NOTES

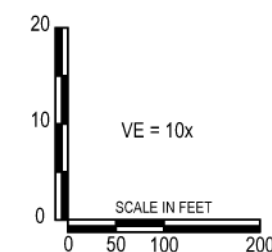
-  Monitor Well Riser
-  Monitor Well Screened Interval
-  Estimated Ground Surface
- VE = Vertical Exaggeration

Pleistocene to Recent Age

-  SP and SW - medium/ coarse gravelly SAND
-  SC and SM - silty/ clayey SAND
-  CL - CLAY with sand

Miocene Age

-  CL* - Hawthorn Group upper confining unit



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FIGURE 7
GENERALIZED GEOLOGIC CROSS-SECTION
ACROSS TRANSECT A - A'
BWAY Corporation (HSI #10731)
Homerville, Clinch County, Georgia

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